

Michael O. Leavitt

Robert L. Morgan **Executive Director** Lowell P. Braxton

Division Director

PO Box 145801 Salt Lake City, Utah 84114-5801 (801) 538-5340 telephone

(801) 359-3940 fax

(801) 538-7223 TTY

www.nr.utah.gov

June 6, 2003

TO:

Minerals File

FROM:

Paul Baker, Senior Reclamation Biologist

RE:

Site Inspection, Ziegler Chemical and Mineral, Ziegler Gilsonite Mine, M/047/013,

Uintah County, Utah

Date of Inspection:

May 22, 2003

Time of Inspection:

about 10:15 a.m. to 2:15 p.m.

Conditions:

Mostly clear, 70-80's

Participants:

Duane Boren (Ziegler), Stan Perkes (BLM), and Paul Baker (DOGM)

## **Purpose of Inspection:**

The primary purpose of the inspection was to look at some work the operator has done on the Cowboy Vein to fill the trenches. We also wanted to see some areas that were previously capped and where water has been piping around the caps.

## **Observations:**

The area we examined had alternating open and closed trenches (Photo1). The operator has been working to fill these trenches which were apparently mined both before and after passage of the Mined Land Reclamation Act. Even in those areas that were not mined to the surface, the amount of remaining Gilsonite may be fairly small, but it is impossible to tell except in limited areas. Mr. Perkes was able to measure the thickness of the Gilsonite in one location, and it was about three feet deep and overlain by about two feet of soil.

Photo 3 shows an area where the operator has filled the trench with rock, and Photo 2 shows where the operator has been putting rock from the Sterling Mine. There is still a ways to go before the trench in Photo 2 is filled.

There are various piles of waste Gilsonite, soil, and rock near some of the trenches, and there are also some concrete pads we saw and that Mr. Boren told us are nearby.

To the east of the area shown in Photo 1 but west of the CNV-1 shaft, there is an area where the operator has tried to close a shaft or trench with concrete. This is apparently in the area of an escapeway between the C-2 and C-3 shafts. There has been some piping around some of this concrete



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unconsolidated soil over the trenches or shaft.

(Photos 4 and 5), and the larger holes have been covered with chain link fencing. Although there are no fully open trenches in this area, we do not know how much Gilsonite was left or if there is just a layer of

To the west of the areas shown in Photos 1, 2, and 3, there is a reclaimed trench where soil has been gathered from the sides and bermed over the trench (Photo 6). We did not know exactly what reclamation methods were used in this area and whether the trench was completely or just partially filled, but we saw some areas where soil has been piping into the trench, possibly into voids in rock used to fill the trench (Photo 7). Vegetation in this area consisted almost entirely of weedy species, but I do not know if the operator seeded it.

A little father west is a reclaimed airfield and a shaft in the process of being reclaimed (Photo 8). I believe this shaft was part of the C-1 Mine. The airfield was nicely roughened, and some desirable species are starting to grow. We talked about what kind of permanent cover to put over the shaft.

## **Conclusions and Recommendations:**

There has been some concern whether the rock being used to fill the trenches would bridge and collapse later. Although this might happen, especially in narrower trenches, it did not appear to be a problem in the area we looked at. The operator should continue to fill the trenches and could use waste Gilsonite and concrete as long as the concrete is broken up enough that it doesn't bridge.

The area shown in Photo 3 should be graded, covered with soil, and revegetated. There is some soil in the area that could be used for this purpose. The area should be left as rough as possible and seeded in the fall.

In any areas where there is just a layer of soil over a trench or where the Gilsonite is thin, the operator needs to uncover the trench, potentially mining the last of the Gilsonite, then fill the trench. This is particularly true of the area near the CNV-1 Mine where holes have opened up. It will probably be necessary for the operator to dig the soil out of the trench in this area to see exactly what the conditions are.

The piping shown in Photo 6 should be repaired, then the area should be monitored. This entire area should be scarified, left as rough as possible, and seeded in the fall.

jb

cc: Stan Wagner (Ziegler) Stan Perkes (BLM)

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## **ATTACHMENT**

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Photo 1. The operator has been working to fill in the trench shown in the lower right portion of this photo. This is the same trench as in Photo 2.



Photo 2. An open trench the operator is filling.



Photo 3. This area is on the other side of the hill from the area shown in Photo 2. The operator has finished filling this portion of the trench. Some soil and waste Gilsonite are nearby.



Photo 2. One of the holes that have opened up near CNV-1.

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Photo 3. Another of the holes that have opened up.



Photo 4. Soil has been scraped from the sides and bermed over a trench shown near the center of this photo.



Photo 5. A hole where water has piped into the trench in Photo 5.



Photo 6. Reclaimed airstrip.